

[54] **CIRCUIT FOR MEASURING CAPACITANCE**

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[57] **ABSTRACT**

A circuit and method for measuring the capacitance of a circuit element. A reference capacitor, a voltage source, and a switching circuit are arranged such that the circuit element and the reference capacitor are alternately charged and discharged from the voltage source at the same frequency, the charging of the circuit element being synchronized with either the charging or the discharging of the reference capacitor. Currents of the circuit element and the reference capacitor, for example the discharge currents, are supplied to a reservoir capacitor circuit and compared to provide a measure of the difference between the capacitances of the circuit element and the reference capacitor. The comparison is made by monitoring the feedback current necessary to maintain the charge of the reservoir capacitor circuit substantially constant.

8 Claims, 3 Drawing Figures

